

## **REMARKS**

The Office Action dated September 28, 2005, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1, 14, 16, 20, 27, and 28 have been amended to more particularly point out and distinctly claim the subject matter of the invention. No new matter has been added. Claims 1-32 are respectfully submitted for consideration.

### **Allowable Subject Matter**

Applicants thank the Examiner for the indication that claims 1-26 and 28-29 contain allowable subject matter. It is respectfully submitted that, in view of the amendments above and the remarks below, claims 1-26 and 28-29 are presently in condition for allowance.

### **Claim Objections**

The Office Action objected to claims 1-26 and 28-29 because of antecedent basis issues. Applicants respectfully submit that the amendment filed herewith renders the objections moot. Accordingly, Applicants respectfully request that the objection be withdrawn.

### **Rejections under 35 U.S.C. 112**

Claims 16 and 20 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite, in both cases because of antecedent basis issues. Applicants respectfully submit that the amendment filed herewith renders the rejections moot. Accordingly, Applicants respectfully request that the rejections be withdrawn.

### **Rejections under 35 U.S.C. 102**

Claims 27 and 30-31 were rejected under 35 U.S.C. 102(a) as being anticipated by LEVEL ONE (Level One™ IXP1200 Network Processor). Applicants respectfully submit the presently pending claims recite subject matter that is neither disclosed nor suggested in the prior art of record.

Claim 27, upon which claims 28-32 depend, is directed to a method of handling data packets in a network data switch. The method includes receiving at a data port an incoming data packet. The method includes resolving a destination address of said incoming data packet. The method includes discarding, forwarding, or modifying the packet based upon the resolving step. The method includes placing at least a portion of said data packet on a first communication channel, when the packet is to be forwarded. The method includes receiving at said data port a section of another data packet on a second communication channel from a common memory. The method includes forwarding said another data packet from said data port. The first and second channels

are separate from each other. The steps are performed in a single network switch on a single substrate.

As discussed in the present specification, certain embodiments of the present invention provide a network device that is compact and provides necessary processing power in a single chip embodied on a single substrate. It is respectfully submitted that the cited art of LEVEL ONE fails to disclose or suggest all of the elements of any of the presently pending claims. Therefore, the prior art fails to provide the critical and unobvious advantages discussed above.

LEVEL ONE is directed to a network processor that is used to switch data on a network. LEVEL ONE notes on page 1 that it “contains information on products in the sampling and initial production phases of development.” LEVEL ONE also states, on page 2, that the “Level One IXP1200 Network Processor may contain design defects or errors ... which may cause the product to deviate from published specification.” Accordingly, it is unclear what LEVEL ONE actually enables.

Claim 27 recites, in part, “wherein the steps are performed in a single network switch on a single substrate with the common memory.” As discussed in previous responses, LEVEL ONE does not teach or suggest “wherein the steps are performed in a single network switch on a single substrate,” and therefore it does not teach, even more so, “wherein the steps are performed in a single network switch on a single substrate with the common memory.” For example, LEVEL ONE does not teach that a processor and a common memory capable and used for storing packet data coexist on a single substrate.

For example, LEVEL ONE describes that components may have local unshared memories, such as the local data caches in Figure 2. However, those local unshared memories are not common memories, and it is not clear whether they serve to store a data packet. The SDRAM Memory Unit is not a memory, but an interface to memory, and any memory it contains is not common memory, but memory for performing its local functions. If LEVEL ONE has a common memory, it is the SDRAM. However, the SDRAM is a memory that is on a separate substrate, as can be seen in Figure 1 of LEVEL ONE. Accordingly, it is respectfully submitted that LEVEL ONE fails to teach or suggest at least “wherein the steps are performed in a single network switch on a single substrate with the common memory.” Therefore LEVEL ONE fails to teach or suggest all the elements of any of claims 27, 30, or 31.

#### **Rejections under 35 U.S.C. 103(a)**

Claim 32 was rejected under 35 U.S.C. 103(a) as being unpatentable over LEVEL ONE in view of U.S. Patent No. 6,570,875 of Hegde (“Hegde”). The Office Action states that LEVEL ONE teaches all the elements of the claim except “updating address information used in forwarding data packets at the plurality of data ports while the address information is received at one data port of the plurality of data port [sic].” The Office Action states that updating address information is well known in the art as evidenced by Hegde. Applicants respectfully submit the presently pending claim recites subject matter that is neither disclosed nor suggested in the prior art of record.

As discussed in the present specification, certain embodiments of the present invention provide a network device that is compact and provides necessary processing power in a single chip embodied on a single substrate. It is respectfully submitted that the cited art fails to disclose or suggest all of the elements of any of the presently pending claims. Therefore the prior art fails to provide the critical and unobvious advantages described above.

Hegde is directed to automatic filtering and creation of virtual LANs among a plurality of switch ports. Hegde generally discusses a solution that involves a CPU sharing decision-making tasks with the switch. The CPU is also connected to a flow table, a configuration table, routing tables, a packet buffer, and a shared memory.

As discussed in the present specification and above, certain embodiments of the present invention provide a network device that is compact and provides necessary processing power in a single chip embodied on a single substrate. It is respectfully submitted that the cited art of LEVEL ONE and Hegde, whether taken singly or combined, fails to disclose or suggest all of the elements of any of the presently pending claims. Therefore, the prior art fails to provide the critical and unobvious advantages discussed above.

As discussed above with regard to claim 27, upon which claim 32 depends, LEVEL ONE does not teach or suggest all of the elements of the claim, and in particular, “wherein the steps are performed in a single network switch on a single substrate with the common memory.” Hegde does not remedy the deficiencies of LEVEL ONE. For

example, Hegde specifically shows (for example, in Figure 2, a shared memory separate from the switch module, and also shows the CPU connected to feed a packet buffer that is external to the switch module. Also, as explained above, Hegde generally discusses sharing steps between the switch and the CPU. Accordingly, it is respectfully suggested that Hegde and LEVEL ONE, whether taken singly or combined, fail to teach or suggest all of the elements of claim 32.

### **Conclusion**

As noted previously, claims 1-26 and 28-29 were indicated as containing allowable subject matter. It is further submitted that each of claims 27 and 30-32 recite subject matter that is neither disclosed nor suggest in the cited prior art. It is therefore respectfully requested that all of claims 1-32 be allowed, and that this application be passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

  
for Douglas H. Goldhush  
Registration No. 33,125

**Customer No. 32294**  
SQUIRE, SANDERS & DEMPSEY LLP  
14<sup>TH</sup> Floor  
8000 Towers Crescent Drive  
Tysons Corner, Virginia 22182-2700  
Telephone: 703-720-7800  
Fax: 703-720-7802

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